



DEPARTMENT OF THE NAVY

THE ASSISTANT SECRETARY OF THE NAVY  
(ENERGY, INSTALLATIONS & ENVIRONMENT)  
1000 NAVY PENTAGON  
WASHINGTON DC 20350-1000

JUL 16 2012

The Honorable Charles E. Schumer  
322 Hart Senate Office Building  
Washington, DC 20510

Dear Senator Schumer:

Thank you for your letter of June 14, 2012, regarding former Naval Weapons Industrial Reserve Plant (NWIRP) Bethpage. Secretary Mabus' response of June 27, 2012 promised a more detailed letter regarding issues you raised. I am providing this detailed response on behalf of Secretary Mabus.

The Navy continues working actively with the project team and external stakeholders to address this site in a comprehensive and systematic manner. The U.S. Environmental Protection Agency's (EPA's) proposed cleanup and monitoring plan you reference in your letter is a hybrid of alternatives 2a/2b from the Navy's "Study of Alternatives for Management of Impacted Groundwater at Bethpage, January 2012" (referred to as the "Alternatives Evaluation Report," a copy of which has been provided to your staff). EPA's alternative proposes additional treatment in one specific area of the groundwater contamination, along with additional monitoring.

Our Navy staff and consultants met and reviewed all of these alternatives on May 16, 2012, with representatives from EPA, the New York State Department of Environmental Conservation (NYSDEC), the New York State Department of Health, and the U.S. Army Corps of Engineers (USACE) (consultant to EPA). EPA prepared meeting minutes, which include the following sentences regarding the area EPA had identified for specific treatment: "The actual delineation of contamination in this area, however, is not fully defined to provide sufficient justification to implement this alternative at this time. [...] Based on this information, Rob Alvey (EPA) and Greg Hattan (USACE) concurred." Because this specific proposal was deemed not ready, we are conducting additional site characterization and looking for areas where additional treatment systems would be effective. Even with this additional treatment, however, the expansiveness of the groundwater contamination does not allow complete hydraulic containment, and wellhead treatment will continue to be required at downgradient water purveyors. The following paragraphs provide specific details.

The term "Bethpage Plume" is used to collectively describe groundwater contamination originating from three distinct areas: 1) Northrop Grumman Corporation's (NGC's) historical operations on NWIRP Bethpage, 2) NGC operations on their solely-owned property, and 3) properties owned and operated by other parties. The groundwater contamination associated with NGC's historical operations has been divided into two Operable Units (OUs) based on property ownership. OU-2 consists of multiple plumes of groundwater contamination from Navy-owned and/or NGC-owned property. OU-3 consists of contamination at, and migrating from, a property solely owned and operated by NGC and donated to the Town of Oyster Bay in 1962.

The Navy has been working aggressively to remediate the Bethpage OU-2 contamination. We have consistently taken a proactive approach to protecting human health and the environment in locations where we believe contamination originates from the former NWIRP Bethpage facility. Specifically, we have protected and treated drinking water and remediated soil vapor intrusion at residents' homes. The Navy's current budget estimate projects cleanup costs of between \$123 million and \$391 million for the soil and groundwater cleanup program associated with NWIRP Bethpage. The upper end of this range is largely driven by the uncertainty about future impacts to water district wells that may possibly be affected by contamination from the Bethpage plumes, as well as by the range of costs associated with additional soil contamination on NWIRP property.

The Navy has also been actively addressing water district claims regarding OU-2 contamination. To that end, the Navy reimbursed the South Farmingdale Water District (SFWD) for the successful installation of an agreed treatment system for SFWD Plant 1. The Navy is also in confidential settlement discussions with Bethpage Water District and SFWD in an effort to address treatment issues at other plants within their purview. Recently, at the New York American Water (formerly Aqua NY, Inc.) facility, the Navy successfully completed installing an interim water treatment facility. A contract has been awarded, and the Navy is prepared to begin constructing an agreed permanent treatment system. NGC has not offered to financially participate in addressing any of these water districts' claims. Because NGC is a potentially responsible party under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Navy is in confidential settlement discussions with NGC to resolve the allocation of responsibility between the Navy and NGC for the Bethpage plumes, including these claims.

Your letter asserts that wellhead treatment is not the best choice for remediation of the Bethpage plumes. After careful study, wellhead treatment was determined jointly by NYSDEC and the Navy to be the best technical approach to ensure those receiving water from wells affected by the Bethpage plumes are in fact getting clean water meeting applicable drinking water quality standards. Wellhead treatment was chosen for this plume because it is a proven, effective remedy, not because of Navy policy. This technology has been utilized at other complex groundwater plume sites across the country by EPA, States, and private parties. While the Navy recognizes there is interest in finding a way to fully contain the plumes, such an approach is considered technically infeasible for reasons discussed in the recent OU-2 "Alternatives Evaluation Report".

The Navy contracted the U.S. Geological Survey and Battelle, while EPA contracted USACE, to review the findings and conclusions of the OU-2 "Alternatives Evaluation Report". Each of these parties concurred that, from a technical standpoint, full hydraulic containment of the OU-2 contamination is not feasible. Large, deep plumes tend to be very complex, with multiple plume fingers that are difficult to identify, capture, and treat with any degree of certainty, especially in a region with virtually no real estate available for installing a full containment system. The potential for downgradient supply well impacts (and the associated costs) cannot be eliminated with attempts to aggressively contain a large, deep plume. Therefore, a containment approach would almost certainly still require implementing wellhead treatment systems at each affected water district to ensure consumers receive clean water.



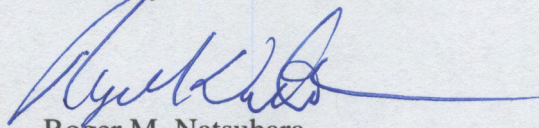
Your letter also expressed concern over how soon contamination might begin to affect the water district furthest away from the leading edge of the plume, Massapequa Water District. The Navy assembled a team of independent, nationally-recognized experts in chlorinated solvent impacts to groundwater to review and reevaluate the selected OU-2 remedy. As part of that review, the team calculated the anticipated arrival time of contamination in groundwater supply wells to be within the next 10 to 40 years. This calculation contains several assumptions, including that the geology, hydraulic gradient, and physical stressors encountered by the contamination will continue along the same trajectory, spatially and temporally. The team recommended that monitoring wells be installed about midway between the currently identified leading edge of the plume and Massapequa supply wells to serve as additional indicators of plume migration. The Navy has already installed such wells.

The OU-3 Proposed Plan to which your letter refers (the state's Proposed Remedial Action Plan [PRAP]) was discussed at the public meeting held on June 12, 2012. The Navy maintains that, unlike OU-2, available information does not support claims that the Navy is a potentially responsible party for the OU-3 contamination. The NYSDEC OU-3 PRAP states the OU-3 plume is migrating downgradient and into the OU-2 plume. While we are not responsible for the OU-3 plume, we will continue to address the OU-2 plume in coordination with NYSDEC, EPA, NGC, and impacted water districts.

The Navy has entered all appropriate legal cleanup commitments with New York State. After signing our federal OU-2 Record of Decision in 2003, the Navy signed a Federal Facilities Site Remediation Agreement with NYSDEC for implementing the OU-2 remedy in January 2005. The Navy is actively conducting the necessary remedial actions described in these documents with NYSDEC oversight and concurrence. As stated in the OU-3 PRAP, NGC has not signed orders on consent with the State for any Remedial Design and Remedial Action obligations.

Thank you again for your letter. If I may be of further assistance, please do not hesitate to let me know.

Sincerely,

A handwritten signature in blue ink, appearing to read "Roger M. Natsuhara", is written over a light blue rectangular background.

Roger M. Natsuhara  
Acting